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End of the Tunnel? The Effects of Financial Stabilization In Russia

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End of the Tunnel? The Effects of Financial Stabilization in Russia

Barry W. Ickes, Peter Murrell, and Randi Ryterman[1]

During 1996, Russia passed two milestones. Successful completion of the Presidential election marked a further episode in the country's democratic development. Equally important was the achievement of financial stabilization. Inflation began to stabilize in the summer of 1995, when it fell below five percent a month; by the summer of 1996, it was less than one percent.

Yet, despite the apparent stabilization of the ruble, official output continues to fall. According to *Goskomstat*, GDP in 1996 fell 6 percent, while industrial output in 1996 fell 5.5 percent, compared with 1995.[2] The key question now is, when will economic growth resume? Financial stabilization is often a prelude to growth, but is it a sufficient condition for economic growth? Can Russians see the light at the end of the tunnel?

Russia presents a puzzle to those who claim that liberalization and stabilization are sufficient conditions for economic growth. In Poland and the Czech Republic, economic growth recovered relatively quickly after the economy stabilized. In Russia, the liberalization of prices has seen its fifth anniversary, and privatization has been far more comprehensive than in Poland. Inflation finally began to stabilize in the summer of 1995, after several attempts at imposing monetary discipline had failed. In Russia, output has not yet recovered and, at least as officially measured, continues to decline.[3] Why?

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[2] Most western analysts believe that official statistics overstate the fall in Russian output. See, for example, Gavrilenkov and Koen (1994).

[3] Russian Economics Minister Yevgeniy Yasin was strongly critical of the government's economic reform program in 1996. "One has to say it failed," he told parliament during debate of the government's 1997–2000 economic program. The reduction of inflation was the sole significant achievement in 1996, he said. It was reduced to 21.8 percent from 131 percent in 1995 (Interfax, January 22, 1997).

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In this article, we contend that the present stabilization in Russia is not sufficient for a resumption of growth. Economic recovery requires that enterprises *invest* in such growth-oriented opportunities as restructuring and entry into new activities. The problem is that uncertainty over the durability of financial stabilization and other macroeconomic conditions in Russia might cause investors to postpone such activity until some of this uncertainty is resolved. If many investors act the same way, then the belief in the unsustainability of the present stabilization might be self-fulfilling: in the absence of an expanding tax base and of reform of the present fiscal system, the government will not be able to collect sufficient tax revenues to sustain financial stabilization.

The Russian government has managed to alter the means of deficit financing, so that inflation could be reduced. But, unfortunately, it has not managed to bring down real interest rates to levels conducive to investment. This is because less progress has been made with respect to the *level* of the budget deficit. As a consequence, the Russian government has been unable to implement a stable and credible fiscal system. At a superficial level, tax rates appear reasonable. Yet firms complain that the fiscal system imposes an unreasonable burden. Taxes are proliferating, particularly at lower levels of government. In addition, the financial bases on which taxes are levied are typically broader in Russia than in other countries. This excessive burden has driven an important part of the economy underground, lowering the tax base and creating pressure on the government to increase tax rates. Clearly, the present fiscal regime is not sustainable and is a source of significant macroeconomic uncertainty.

Yet uncertainty, by itself, is not necessarily inimical to investment. With greater uncertainty, there are greater rewards as well as greater losses. However, when sunk (or irreversible) costs are associated with uncertainty over future outcomes, there is an option value to waiting. With sunk costs, higher levels of uncertainty create an incentive for a prudent investor to delay investment until more is known about likely outcomes.

In the transition environment, investment in restructuring and new activities is typically associated with high levels of sunk costs. We argue below that this is especially the case in Russia. Institutions that are key to the market system remain highly underdeveloped. This problem exists for a broad range of institutions, including various aspects of telecommunications, transport, trade, the financial system, and, in particular, the legal system.[4] The effect of these problems is to make a key aspect of restructuring and new entry—the establishment of new relationships between firms—very costly. Moreover, the costs that firms incur in trying to establish new relationships are typically "sunk"; that is, they cannot be recovered should the new relationship later prove unsuitable. Hence, when market institutions are underdeveloped, heightened uncertainty diminishes the rewards to restructuring and new entry.

[4] These institutions are particularly important in a country the size of Russia, in which relationships between firms must be coordinated across vast distances.

Compared to restructuring and new entry, firms find informal profit-seeking more advantageous. Informal profit-seeking refers to activities that produce wealth for management, without generating official profits. These activities are characterized by short horizons, small scale, and limited investment. Because they typically involve trade of traditional products with traditional trading partners, and not the development of new activities, they have less effect on long-term growth than do restructuring and entry. Recent estimates of tax evasion, barter, and the creation of quasi-money (which, we argue, are largely reflections of the same underlying phenomena) suggest that these activities are dramatically increasing.

We present this argument in more detail in the remainder of this article. First we provide a framework for understanding the incentives for delaying restructuring and new entry during transition. This framework focuses on the role of sunk costs and uncertain future outcomes on the incentive to invest. Thereafter, we explain why the present financial stabilization might not be sustainable, and how it is contributing to macroeconomic uncertainty. Then we describe how the underdevelopment of important market institutions creates irreversible costs associated with investments in restructuring and entry, detailing how this underdevelopment is particularly acute for Russia. Subsequently, we describe the firm's alternative to restructuring: informal profit seeking. Finally, we describe macroeconomic policies that are needed to sustain the present stabilization.

RESTRUCTURING AND NEW ENTRY: AN OPTION VALUE APPROACH

The essence of economic restructuring and entry into new activities is investment, in the broadest sense: economic agents taking actions that are costly or painful today, but that pay off in the future. This involves not only physical investment—building new plants or installing new machinery—but reorganization of enterprises, moving to new areas, setting up new arrangements (method of contracting or creating a marketing department), and so on. Each of these activities involves current sacrifice for future reward. The decision to restructure must therefore be thought of as an investment problem. This problem is continually being evaluated in thousands of Russian enterprises.

Given its importance for restructuring, it is important to recognize that aggregate investment in Russia is very low. Capital investment averaged about 12 percent of GDP for the first half of 1996, down from almost 18 percent in 1994 and 15 percent in 1995 (*Russian Economic Trends*, 5, 2, 1996, p. 87). Gross investment at such rates makes it difficult simply to maintain the capital stock. In a market economy, depreciation is an economic rather than a physical concept; opening of the economy has rendered obsolete large quantities of capital.[5] With capital depreciating at a rapid rate, current levels of gross investment may imply that net investment is negative. This has important consequences for recovery.

Economic restructuring can be expected to offer high returns. The inefficient enterprises inherited from the planning era have much to gain from reorganization. Even so, the required investment is not guaranteed since future rewards are uncertain. Of course, uncertainty is present in nearly every investment problem, but it is especially important in transition. In transition, there is an extra component to uncertainty: *regime uncertainty*. The most important source of uncertainty, of course, is the political situation. Although we do not address this specifically in the article, it underlies much of the discussion.

A key characteristic of uncertainty in transition is that much of the uncertainty facing firms will be reduced as the transition proceeds. Firms are uncertain over future rewards precisely because the regime is undergoing rapid institutional change. Firms are not sure of their own survival and that of their trading partners;[6] rules are changing, such as taxation of profits[7] or the implementation of bankruptcy statutes. This type of uncertainty generally declines over time, as the institutional and market setting begins to take shape and agents learn the new rules. Much can be learned simply by waiting.

Greater uncertainty, by itself, is not problematic. With greater uncertainty, there are greater rewards as well as greater losses. Mean-preserving increases in uncertainty do not necessarily reduce investment.[8] The issue is very different, however, when there are *sunk* (or irreversible) costs associated with investment. When there are sunk costs[9] and uncertainty over future outcomes, there is an *option value to waiting*. Because of the sunk

[5] Hence, it is not surprising that the State Tax Service estimates that the depreciation rate of fixed capital was 50 percent in 1996 (*Finansovyye Izvestiya*, February 6, 1977, p. 1).

[6] For an analysis of the survival-oriented firm in transition, see Ickes and Ryterman (1994b).

[7] For an analysis of tax uncertainty on firm behavior in Russia, see Litwack (1993).

[8] The last statement ignores risk aversion, of course. Adding risk aversion would only increase the force of our argument. The option value of waiting, however, does not depend on risk aversion.

costs, it might pay to delay investment until more is known. The greater the sunk costs and the more uncertain the future, the better it is to wait and see how the uncertainty is resolved.

Thus, potential investors must always weigh the returns to waiting against the opportunity cost of delayed investment. The major cost of delaying investment is that of not being the first one in an activity. In a rapidly changing environment, there might be once-in-a-lifetime opportunities for the first entrant. While this might be important in some activities, it is less so in others. For many activities, especially those that are associated with restructuring, haste is not essential. Thus, in an uncertain environment with large sunk costs, investors may choose to wait to invest, even if the *expected* rewards are high.

The uncertainty surrounding the institutional regime in transition is compounded by the fact that all other enterprises are *simultaneously* deciding whether to restructure.[10] Under such circumstances, there is a further incentive to delay investing until more is known, an incentive that depends critically on expectations about the actions of other enterprises.

This simultaneity in decision-making draws attention to a further key characteristic of uncertainty in transition, the importance of *strategic complementarity*. Actions are strategic complements when the marginal return to one firm from taking an action is increasing in the amount of the activity another firm undertakes.[11] Many elements of transition exhibit this characteristic. Consider, for example, the case of an enterprise contemplating an investment in fixed capital. If many other enterprises in the economy also undertake investments at the same time, output will be high and tax rates will be low.[12] The enterprise that chooses to invest in such a situation will be satisfied with the outcome. In contrast, if other enterprises are not undertaking investment, output will be low and tax rates high. Hence, the enterprise will choose not to invest. Because of the strategic complementarity, the possibility of multiple equilibria arises.

[9] An investment is fully irreversible when it cannot be undone, in other words, when negative investment is impossible. When sunk costs are present, investment is at least partially irreversible, since one cannot recover the sunk costs associated with investment. It might be possible to sell a machine tool, for example, but even in a competitive industry the sale price will be less than the purchase price, since the machine tool will be excess capacity to another firm. The literature on irreversible investment has grown rapidly in recent years. See Dixit and Pindyck (1994) for a detailed survey, and Abel and Eberly (1994) for a unified approach to investment with adjustment costs and irreversibility.

[10] For a discussion of simultaneous restructuring, see Ickes and Ryterman (1994b).

[11] If the marginal return to an action decreases when others undertake more of the action, then they are said to be strategic substitutes. A standard example would be two oligopolists. The more output produced by one of the oligopolists, the lower the return to the other from increasing output.

[12] This assumes that firms are set to finance a fixed level of expenditure.

Notice that strategic complementarity enhances the option value of waiting. If investment activities are strategic complements, then the act of waiting causes a deterioration of the economic environment, in turn affecting the fiscal problems of the state. If enterprises undertake active investment policies, the contraction in output is reduced, and a regime of low tax rates is consistent with fiscal balance. If enterprises delay investments, however, then the same tax rates and expenditure programs imply large public-sector deficits and monetization. Thus, uncertainty over future tax rates depends, to a large extent, on the decisions made by other actors. The tax problem is an important example of endogenous uncertainty in transition, especially with respect to stabilization. But this is not the only type of endogenous uncertainty. Sachs (1994) develops several other examples, among them the willingness to hold domestic currency, a subject to which we return below.

FISCAL UNCERTAINTY: THE NATURE OF RUSSIAN STABILIZATION

During 1996, Russia succeeded in reducing inflation: the monthly rate fell below 1 percent in July, and hovered around the one-percent level for the remainder of the year. The method of stabilization has been straightforward: the end of monetary financing of the budget deficit. This was accomplished not by an increase in tax revenues, nor by cutting expenditures,[13] but by issuing short-term treasury bills (GKO), longer-term treasury bills (OFZ's), and other notes,[14] along with lending from the International Monetary Fund. By reducing the rate of money emission, this policy has been successful at reducing inflation and has made it possible to stabilize the ruble.

Through the first nine months of 1996, approximately 37 percent of the budget deficit was financed externally, primarily with foreign loans and the EFF facility of the International Monetary Fund. The remainder was financed *via* issue of GKO and OFZ's. Russia began issuing internal debt in March 1993. The outstanding stock of internal debt, as a share of GDP, is relatively small by international standards, reaching 11 percent at the end of 1996 (*Russian Economic Trends*, Monthly Update, November 1996, p. 2).[15] But it is increasing at a rapid rate, the ratio of debt to GDP having tripled over the previous year.[16]

This rapid growth in internal debt is often seen as the reason that interest rates in Russia remain high despite the significant reduction in inflation. The average monthly yield on GKO was 6.9 percent in June 1996. It fell to 3.5 percent by October 1996, but these figures still amount to an annual (compound) rate of 122 percent and 51 percent, respectively.[17] With inflation averaging about 1.5 percent per month for the fourth quarter of 1996, this amounts to a real rate of interest of approximately 2 percent per month, or 27 percent per year. Although the trend in interest rates might be decreasing,[18] these high real interest rates impose a severe cost on business. First of all, these are short-term interest rates; longer-term credits are harder to obtain even at these rates. Second, rates of return to productive investment, typically, are much lower than this.

An often-expressed view is that the emission of internal debt keeps interest rates high because of crowding out. The government is raising some 2–3 percent of GDP by selling GKO. At the same time, however, the savings rate is rather high while investment is relatively low.[19] This suggests that some of the funds that flow to the GKO market would, in the absence of government borrowing, contribute to capital flight. The government is not outbidding the private sector for funds; the private sector is unwilling to invest, given the current macroeconomic environment.

Nonetheless, fiscal policy is responsible for high real interest rates in Russia. The reason is more likely that the high interest rates reflect a risk premium, *due to the rapid growth in the level of debt*. This creates uncertainty over how the budget will eventually be balanced. Despite the victory over inflation, it must be recognized that stabilization has not been successfully completed. All that has occurred so far is a change in the form in which the

[13] While there has not been a serious cut in the level of expenditures, the Russian government has sequestered significant amounts of spending. Thus, through the first three quarters of 1996, realized budget expenditure was only 75 percent of budget levels.

[14] Financing the debt with government notes is usually termed an alternative to printing money, but it is not clear how much of these GKO have been purchased by the Central Bank of Russia

[15] Notice that the ratio was 8.1 percent at the end of September 1996. Compare this with many European countries (Belgium, Italy) where this ratio exceeds 100 percent, or the US where it is about 66 percent.

[16] Something of the dynamics of this ratio can be seen by noting that it stood at 2.3 percent for June 1995, 3.4 percent for January 1996, 5.0 percent in June 1996, and 8.1 percent in September 1996 (*Russian Economic Trends*, 5, 2, 1996, p. 21).

[17] In January 1995, the monthly yield was 13 percent or over 300 percent annual rate.

[18] Of course, all we can really speak of is the realized rate (the nominal interest rate minus actual inflation). For much of the transition, the realized rate has been negative; as recently as January 1995, the real monthly yield on GKO was –2.0 percent per month. By June 1996, this rate had risen to 5.7 percent per month. By October it had fallen to about 2.3 percent per month. Note that this decline may be due to expectations adjusting to lower inflation: the monthly inflation rate in August was –0.2 percent.

[19] The savings rate (out of gross income) continued to hover around 24 percent through the first 8 months of 1996, and the savings rate out of disposable income was approximately 26 percent in the same period (*PlanEcon Report*, XII, October 14, 1996, p. 11).

deficit is financed. This may succeed temporarily in bringing down the rate of inflation, but it does not provide a stable outcome. As long as interest rates are higher than the growth rate of output, reliance on sales of GKO results in an ever-increasing ratio of internal debt to GDP. This raises the cost of servicing the debt, which reached 5.8 percent of GDP in 1996, compared to 2.4 percent for 1995.[20]

The cost of servicing the debt reflects the reliance on GKO sales to avoid monetization of deficits. There is a longer-term cost as well. As the ratio of GKO to GDP continues to rise, the value of GKO falls when investors demand a higher premium to hold this paper. If the process is expected to continue indefinitely, the value of GKO must go to zero at some future date. But rational investors anticipate this, which lowers the current value of government debt. As long as investors believe that the long-term fiscal problems have not been solved, they will place a low value on government debt, which puts upward pressure on real interest rates.

The proximate cause of the fiscal crisis in Russia is the inability to collect taxes. Federal revenues in 1996 were some 16 percent below levels targeted in the budget (*Izvestiya*, January 14, 1997). This was partly due to lower-than-expected inflation and to the continuing fall in output, which was not anticipated in the budget. But it is primarily due to increasing tax arrears. Shortfalls in tax collection caused the International Monetary Fund to delay delivery of monthly payments in July and October 1996 and February 1997.

It is important to note that the shortfall in tax revenue is not due to low tax rates. The current tax system is very burdensome for enterprises, for a variety of reasons. Taxes are levied on costs as well as income, most notably in the excess wage tax. Depreciation is not fully deductible. Moreover, the sheer number of taxes, and the unpredictability of their rates and burden, is overwhelming.[21] Taxes levied by regional governments have multiplied. In Yakutiya, 24 different taxes and fees were introduced, while in Moscow companies are required to submit 23 different quarterly reports to comply with all necessary taxes (Morozov, 1996, p. 43). This proliferation of taxes and reporting requests places an especially difficult burden on small enterprises.[22]

The shortfalls in tax collection are due to institutional weakness and economic incentive. Weak enforcement power of the State Tax Service (STS)

[20] The Russian Ministry of Finance does not include debt service in its official deficit figure, while the International Monetary Fund does include debt service. Hence, servicing costs can be calculated by noting the difference between the two measures.

[21] Proliferation of local taxes is due, in no small part, to Presidential decree 2268 (December 22, 1993, cited in Morozov, 1996, p. 43), which gave the regions considerable latitude in creating their own taxes.

is one cause of the difficulties.[23] A second factor is that the STS, although a part of the federal government, often comes under control of local governments that control its infrastructure. This is a problem, given that local governments do not often wish to hand over revenues to the federal government. Third, the STS faces perverse financial incentives; they are allowed to keep a percentage of collected fines and overdue payments, which encourages them to find firms in tax arrears in order to earn income. This practice raises the tax burden on firms greatly, and drives activity into informal forms that cannot be detected.

Thus, there is a race in Russia today between the government, which is always seeking means of raising revenue, and enterprises, which attempt to survive in this environment by concealing income.[24] This game is the critical aspect of enterprise behavior in the present period. Much behavior that otherwise would appear surprising can be understood once the nature of this game has been analyzed. It is a game that is highly dependent on the geographical, historical, and institutional character of Russia, thereby explaining why the effects of stabilization in that country might be qualitatively very different from those in more successful transition economies.

IRREVERSIBLE DECISION, SUNK COSTS AND TRANSITION

So far, we have argued that macroeconomic uncertainty due to the incomplete nature of financial stabilization causes investors to postpone investment in growth-producing opportunities, if such investment involves sunk or irreversible costs. In this section, we deepen the argument by providing an institutional explanation of why the level of sunk costs tends to be higher for investment in restructuring than for other investment and especially high in the Russian transitional environment.

[22] A survey of 1700 small firms throughout Russia, conducted by the Working Center for Economic Reform, found that only 1.5 percent of respondents reported all their business transactions, while 33.1 percent hid up to one-third of their transactions and 28.9 percent hid up to one-half of their transactions (cited in Morozov, 1996, p. 45)

[23] "The Russian Tax Service said on January 27 that 26 of its inspectors were killed, 74 injured, six kidnaped, and 164 threatened with physical violence in 1996, ITAR-TASS reported. Eighteen taxation offices experienced bomb blasts and shooting incidents. The service, which has been under heavy government pressure to improve tax collection, has also suffered financial difficulties. Tax offices in Yaroslavl Oblast are on strike to protest delayed wages, and inspectors in Tver are threatening to take industrial action, Radio Mayak reported on 26 January" (*OMRI*, January 28, 1997).

[24] Perhaps the most symbolic example of this phenomenon is the creation of the Extraordinary Commission for Strengthening Tax and Budget Discipline (*Chrezvychaynaya Komissiya po Ukrepleniyu Byudzhetnoy i Nalogovoy Distsipliny*). This institution, named intentionally to recall the Cheka, was organized to collect taxes from enterprises in significant arrears to the budget.

To make this argument, we distinguish between two types of investment: investment in new activities and investment in traditional ones. The latter typically involves altering the *scale* of activities. Investment in new activities involves entry into new markets and the building of new relationships. The change in opportunities that accompanied liberalization implies that investment in *new* activities is critical for the long-term survival of firms. In the absence of government support, firms in declining industries will be forced to exit unless they can restructure their activities to produce new products and services with greater demand. However, such restructuring requires firms to incur a broad range of entry costs. A significant portion of these entry costs tends to be irreversible, as we explain below.

Search and Bargaining

Entry into new activities requires firms to search for and establish relations with new trading partners. The processes of search and bargaining[25] involve investments of time and resources in the collection of information about potential partners,[26] as well as in the design of mechanisms to protect the firms from the risk of new partners behaving opportunistically. Such investment is often sunk; if the new activity is later deemed unsuitable, the firm will not be able to recover the time and resources it invested. Such costs tend to increase over distance. The greater the distance between a firm and a potential trading partner, the greater the investment a firm must make in locating the new partner, establishing its reliability, and negotiating a transaction. In countries such as Russia, in which the quality of institutions designed to lower the cost of transacting over even moderate distances is poor, a role in investment is created for industry location.

Here there is a useful contrast to be made between Russia and other transition countries. In expanding into new markets, Polish and Hungarian firms could rely on many years of market-like interactions with domestic and Western European partners, developed during the era of reforms. Countries such as the Czech Republic, Estonia, and Lithuania, with benign geography, excellent transportation links, and cultural affinities elsewhere,

[25]For an analysis of the role of bargaining costs as a cause of the output decline associated with transition, see Murrell (1992) and Blanchard and Kremer (1997).

[26]To illustrate the difficulties of search in a country with underdeveloped market infrastructure, consider the following anecdote. In 1994, we interviewed the director of a firm in Voronezh, who said that he searched all of Russia for months for a supplier for a particular input, and found it quite by accident through casual conversation at a party; the supplier was located across the street.

would face lower levels of investment than Russian firms when building new relationships.

When search and bargaining are costly, firms that are located in regions comprising a large number of different industries often find that they can invest in new activities at lower cost than firms in regions specializing in a small number of industries. When local industry is diversified, managers have a greater opportunity to formally and informally meet with managers in industries *outside* their own to discuss new activities. Investments in new activities result not only from the formal processes of search and bargaining, but also from the informal discussions that take place outside the formal business setting. These discussions are facilitated when managers in different industries typically belong to the same business associations, civic or political organizations, recreational clubs, and the like, which is more likely when regions are less specialized.

In Russia, regions tend to be highly specialized, reflecting the tendency of Soviet-era industrial planners to concentrate a specific industry in only a few regions to economize on the cost of building and monitoring plants producing similar products.[27] Empirical analysis (Ickes, Ryterman, and Tenev, 1995a; Kumar, 1994; Krugman, 1991) suggests that Russian regions are more specialized than comparable regions in Western Europe and the US and much more specialized than in China. This tends to preserve traditional relationships, while raising the cost of investment into new ones.

Downside Risk

A second aspect of sunk costs concerns the risk to old activities that is created when a firm enters a new activity. The industrial structure inherited from central planning is characterized by complex networks of firms, with high mutual dependence (Ickes and Ryterman, 1994b). During the Soviet era, enterprises did not have the freedom to structure their own set of relations. Autonomy offers firms the opportunity to escape from these networks and to search for new suppliers and new customers. Escape may offer some enterprises significant gains, especially if participation in the current network forces the enterprise to neglect better opportunities elsewhere.

The decision to leave a network is potentially irreversible. If the enterprise leaves its network and cannot be replaced, then the very survival of the old network might be jeopardized. Moreover, a defection by one firm can instigate defection by other firms. Under these circumstances, the

[27]See Ickes, Ryterman, and Tenev (1995a) for a more detailed analysis.

enterprise might not have the choice to return to its original network, in the event its new venture is unsuccessful. Hence, the firm must consider the effect of its departure on the survival of its old network when evaluating whether to make an investment in restructuring. Under such circumstances, uncertainty acts as a conservative force to slow restructuring.

To some extent, the "fragility" of many industrial networks in Russia is augmented by the high cost of searching for and bargaining with new trading partners. Empirical evidence suggests that the potential level of competition in Russia is much stronger than was once believed. According to Brown *et al.* (1994), the number of firms in many Russian industries at the beginning of transition was adequate to ensure competition, absent any other barriers to competition. In a survey of more than 150 firms that we conducted in 1994, we found that nearly three-quarters of the firms were aware of alternative suppliers for their main input. Yet, during our interviews, we learned that, for many Russian firms, the cost of search and bargaining can be prohibitive, so that they are unable to forge new relationships with the defector's competitors.

Regulatory Costs

Most infamous among entry costs in Russia are the excessive costs associated with establishing new businesses. In a recent paper by Frye and Shleifer (1996), the cost of establishing a new business in Moscow is compared to that of establishing a new business in Warsaw. Their survey evidence indicates that it takes almost four times longer to establish a business in Moscow. The new business in Russia is then subject to an average of 19 inspections, more than twice as many as small businesses in Warsaw. Eighty-three percent of the Russian firms in the sample were fined by inspectors last year, almost twice the rate of Polish firms. Such regulatory compliance requires interactions with multiple officials, many of whom need to be bribed before the requisite documents are issued. The incidence of bribes appears to be at least 30 percent worse in Moscow than in Warsaw. Clearly, many of the formal regulatory costs and, certainly, all of the "informal" side payments to officials are not recoverable and thus are sunk, should the investment later be deemed unsuitable.

Kaufman (1997) confirms the high cost of corruption in the operation of firms. Based on a survey of 50 enterprises in three large Russian cities in 1996, he finds that a significant portion of Russian firms pay substantial bribes to regulatory officials for enterprise registration, fire and health inspections, telephone line installations, leasing of commercial real estate, and import and export licenses. Although Kaufman does not present data on the effect of the firm's age or size on the size of total side payments for Russian firms, he does present such evidence for the case of Ukraine. He finds that, compared to state-owned and privatized enterprises, new private firms face substantially greater obstacles from local authorities, pay substantially more bribes, and devote a greater share of managerial resources to dealing with regulatory officials. One suspects this "discrimination" against new private firms might also be present in Russia.

Market Infrastructure

The level of development of market institutions in Russia plays a critical role in determining the sunk costs from investment in new activities. Underdeveloped market infrastructure raises the cost of search and bargaining. It reduces the mobility of firms, diminishing the implicit competition that might exist between regulators in different jurisdictions, if firms could easily relocate their plants. All these factors work to increase the sunk costs of investment in new ventures.

The set of institutions we consider as constituting market infrastructure is broad, and is discussed more fully below. One subset of institutions that is most pertinent comprises those firms engaged in the production of information services, whose products are integral to the process of search. For example, it includes firms that engage in wholesale and retail trade, marketing, and telecommunications. Another subset includes institutions that are integral to the process of bargaining—in particular, legal institutions, including law, lawyers, institutions for private arbitration, courts, and their more informal alternatives.

In our 1994 survey of 150 Russian firms, we found substantial evidence that the quality of information services in Russia is poor and had declined between 1992 and 1994. The volume of intermediation of transactions by wholesale and retail trade firms declined substantially, with nearly two-thirds of the firms complaining that they were dissatisfied with their current channels of distribution. Two-thirds also complained that an important reason for using their current distribution channels was that these channels are their only real alternative. We also found that the quality of telephone services and mail delivery decreased as well. Most revealing, however, is the fact that nearly every firm said that personal connections are important for finding new customers, with no other method receiving such unanimous use and acceptance.

In a more recent survey conducted in 1996 with a small number of firms in Moscow and Yekaterinburg, Hendley *et al.* (1997) find that the legal system in Russia does not adequately support transactions. While a new civil code was passed in 1995, knowledge of that code is only slowly percolating to the level of managers, in part because the legal departments of firms are not well integrated into the life of the enterprise. Firms frequently go to courts to adjudicate disputes, but problems in enforcement seem to push at least some firms to seek private, often illegal, methods of enforcing court decisions. In addition, Hendley *et al.* find that Russia lacks informal networks that might facilitate new relationships.

In the absence of a well-functioning system of law or of low-cost substitutes, more informal and more costly arrangements are needed to make agreements enforceable. Williamson (1975) provides many examples of these arrangements, including the investment of firms into transaction-specific assets ("hostages"). But this self-enforcing mechanism is predicated on the willingness of firms to incur sunk costs—the very type of investment that interacts with uncertainty to delay restructuring.

More generally, the 1994 survey indicates that services provided by other types of market infrastructure, including physical infrastructure and financial institutions, declined in quality as well. Firms complained about the decline in the reliability of all forms of transport, and switched out of rail into trucks owned and operated by the firm, in large part to reduce losses from theft. Twenty percent of the firms said they had to pay for "road protection," and 60 percent of these firms considered these fees to be a large part of their costs. In addition, firms said that the ease of acquiring storage space declined from 1992 to 1994. Problems in the provision of financial services are well documented, and are discussed later in this paper.

This general deterioration in market infrastructure is not surprising. The introduction of markets required the dismantling of many socialist institutions, including those that had worked to coordinate transactions. But the building of new market institutions is taking a significant amount of time as agents slowly acquire the skills and resources necessary for the new institutions. Hence, changes in the quality of services provided by market infrastructure over time approximate a J-curve, declining prior to improving. In fact, one could argue that the decline in output is at least partially due to the coordination failure that was caused by an increase in demand for a market infrastructure that was already overburdened and underdeveloped.

INFORMAL PROFIT-SEEKING

We have argued that the current macroeconomic environment, given structural problems in the microeconomic environment, leads to delay in both restructuring and investment in new activities. Enterprises are not passive, however. In lieu of restructuring and new entry, they engage in a range of activities that we refer to as *informal profit-seeking*. The essence of informal profit-seeking (IPS) is the production of wealth that can be hidden from official view. An enterprise engaged in informal profit-seeking behavior performs activities that produce wealth for management without generating official profits. IPS does not result in measured economic performance, but it does represent the generation of wealth.[28]

IPS activities are characterized by short time horizons, small scale, and limited investment. These tendencies follow from the need to remain hidden. Informal activities preclude the use of legally enforceable contracts. This dissuades actors from engaging in activities with long lags between the *quid* and the *quo*. The need to remain hidden from view also induces smaller scale, for the obvious reason that it is harder, though not impossible, to hide large-scale investments. Most importantly, engaging in IPS activities requires a high degree of trust in trading partners. The need for trust implies that agents engaged in such activities prefer to trade with historical trading partners. Reputations built up by a history of trading supports activities that are very costly to support with contracts. But this means that IPS activities are biased against restructuring, which typically involves changing relationships.

The willingness and ability of enterprises to engage in informal profit-seeking depends not only on the policy environment and structural considerations, but also on the configuration of the stock of "social capital." Social capital consists of shared values and rules for social conduct, which enable a society to solve problems of collective action and to find cooperative solutions to difficult social and economic problems. In the present case, the economic problem to be solved is: how can a manager seek out partners to carry out and share in the rewards of informal profit-seeking, when such activity often is illegal?

Informal profit-seeking works best when the stock of social capital in a country is characterized by a low level of rule obedience and high level of trust in personal relations. A low level of rule obedience is needed to facilitate "first moves." A manager will be more willing to propose a strategy to earn informal profits if he is confident that most other managers do not consider rule avoidance or evasion to be unethical. Next, a high level of trust is needed, so that the managers can execute the strategy without fear that their partners will behave opportunistically or reveal the transaction to the appropriate authorities.

The stock of social capital in Russia takes on precisely the configuration most conducive to informal profit-seeking. Empirical evidence from the World Value Survey[29] suggests that the level of interpersonal trust in

[28] Signs of this activity can be seen indirectly by looking at deviations of aggregate consumption from measured industrial production or real income.

[29] The World Value Survey data referenced here were provided in Shleifer (1996).

Russian society is moderately high; it is only slightly lower than in Japan, on par with Germany, and much higher than in other countries in transition. This survey also suggests that civic behavior, which is often correlated with rule obedience, is very low in Russia. Of the 33 countries for which data are provided, Russia ranks 31st, followed only by Hungary and Romania. Ryterman and Weber (1996) come to similar conclusions concerning trust and rule obedience, based on a survey conducted in 1996 of more than 400 Russian enterprises.

We turn now to an analysis of three aspects of IPS. First, there is tax evasion, which is perhaps the most central element of IPS. The second is barter, which, in principle, need not be an informal activity because it could result simply from a lack of financial resources or an ease in finding a double coincidence of wants. It turns out, however, that barter bears an important relationship to tax evasion. Third, we discuss an institutional innovation that deals with many of the problems that cause informal profit-seeking, and which is an important conduit for it: financial-industrial groups (FIG's).

Tax Evasion and Restructuring

Privatization transforms the formal relationship between state-owned enterprises and the state budget. Under planning, enterprise revenues belong to the state; the enterprise may bargain over its share, but the residual claimant is the state. After privatization, taxes replace the state's ownership, and the enterprise becomes the residual claimant.

Although the form of the relationship between the enterprise and the budget has changed dramatically, important elements of continuity remain. Under planning, the enterprise exploited its private information to increase its share of enterprise income (in the form of bonuses or slack). The form that this behavior took typically involved exaggerating current production and underreporting true productive capacity. Of course, superiors were not ignorant of these activities. Higher plan targets were the response of planners (ministers) to this situation. The outcome was the familiar game played between planners and enterprise directors, where each side found it in its own interest to depart from the full-information signal.

Thought of this way, the dissimulation that was the fundamental behavior of central planning is analogous to tax evasion. Enterprise survival under planning was dependent on judicious use of private information to obtain a plan that would provide "safety factors" and make plan fulfillment likely. This was equilibrium behavior on the part of the enterprise directors to planners who issued taut plans in response to dissimulation. Enterprises reduced the rate at which they were "taxed" by concealing their true capacity and overstating the degree to which plans were fulfilled. To a large extent, success in this regime depended on the ability of the director to "evade taxes." While directors sought to reduce their "tax liability" *via* evasion, planners responded by "raising taxes" *via* higher plan targets.

Transition has changed the form of tax evasion. Enterprises reduce taxation by understating revenues. Considered in this way, it is hardly surprising that enterprise directors responded to corporatization by altering the form, but not the substance, of their use of private information. In order to survive the tumult of transition, and more generally to simply maximize net income, enterprise directors engage in activities to hide income from the tax authorities. And just as under planning, the government responds by setting high, and a large number of, tax rates. Transition does not eliminate the game, it simply alters the form.

One important aspect of this game changes dramatically: the enforcement power of the state. Of course, the power of the state, especially as manifest in what we are calling tax authority, was declining throughout *perestroyka*. But the attempt to create a law-based state, no matter how incomplete this effort, changed dramatically the power of the tax authorities *vis-a-vis* the enterprise. This is not problematic in countries where the norm is to obey the law, but it has severe impacts when the legacy of planning is precisely to evade taxation.

Transition has also allowed the enterprise more scope to hide income. Under planning, the *monobank* system enhanced the monitoring capability of the state (Ickes and Ryterman, 1992). Financial development has led to a proliferation of banks that make it harder to monitor financial behavior. To prevent enterprises from exploiting this opportunity, the Russian government has maintained the system of non-cash transfers between enterprises, and continues to use the banking system to collect taxation. Nonetheless, it seems clear that the ability to evade taxes has been enhanced by the development of the market economy.[30]

The upshot of this analysis is that pervasive tax evasion was a crucial legacy from central planning, and that the developments in the early transition strengthened this process. This is the sense in which tax evasion

[30]One important example of this is the entry of new businesses, an important feature of marketization. This allows enterprises to set up "daughter" companies, which are really shells for avoiding taxes. The enterprise would typically sell its output to the daughter company below cost, showing a loss to the State Tax Service. The daughter company would sell the goods to a customer and earn the profits, but it would then vanish before the Tax Service could find them. The Ministry of Finance sought to eliminate this activity through the use of presumptive taxation, whereby tax liability is based not on actual receipts, but on what revenues should be, given the cost of production. This is hardly conducive to the rule of law.

is the norm and high tax rates the government response.[31] This creates a vicious circle in which high tax rates increase the incentive to evade taxes and then prevalence of evasion leads the government to keep rates high.

The legacy of tax evasion has an important current manifestation in the market for corporate control. The same activities that enable managers to evade taxation are also useful in appropriating returns that are due shareholders.[32] To managers, the returns due to shareholders are often seen as a tax. The ability to hide income via IPS thus serves a dual purpose for managers intent on appropriating the income stream of the enterprise.

Just as tax evasion is abetted by a weak state that is unable to enforce its own regulations, diversion of income from shareholders is made possible by weak property rights. The nature of social capital in Russia, especially the weak foundations of rule of law, dilutes the attempts of shareholders to enforce their property rights.[33] The potential for conflict between owners and managers exists in all economies. In most economies, however, this tendency is attenuated by the need to raise capital. When capital must be raised externally, it is incumbent on management to obtain a reputation for fiduciary responsibility. But this is precisely what is missing from the current environment in Russia, where macroeconomic considerations preclude raising capital externally anyway. Given that the firm is not in the capital market to raise funds, the cost of reneging on contracts with its owners (*i.e.*, the shareholders) is much reduced.

The connection between the inability to raise external finance, weak property relations, and the resulting incentive to appropriate shareholder income provides an important example of *institutional complementarity*. The market for corporate control is much less effective than it would be if financial markets were more active in financing firm operations. An effective financial system provides incentives for firms to work within the legal system, since there is a need to obtain a reputation for fulfilling contracts.

[31] This vicious circle was understood by former Economics Minister Yevgeniy Yasin, who noted that many companies were pushed into the shadow economy by the harshness of the Russian tax system (ITAR-TASS, January 28, 1997).

[32] Willer and Nash (1996, p. 456) show the high discount to which Russian shares are subject, and argue that "the possibility of expropriation of shareholders by management is one of the more important..." causes. Note that at the end of June 1995 the combined value of the 200 largest Russian enterprises ($22 billion) was less than the market value of Daimler-Benz ($25 billion), though it was slightly larger than that of Gillette ($20 billion).

[33] One explanation often offered for the slow pace of economic restructuring in Russia is the weak market for corporate control. Lack of shareholder rights entrenches managers who are loath to restructure. This is an important argument, but it begs the question of why incumbent managers are reluctant to restructure. We focus on this point by emphasizing the return to *informal profit-seeking*. Our argument is that these activities may be very valuable to the management of the enterprise.

And the need to have transparent financial records also raises the cost of tax evasion and informal profit-seeking.

Barter

The growing importance of barter in the Russian economy has been noted by many observers (Hendley *et al.*, 1997). In our 1994 survey of 150 Russian firms, enterprises reported that the incidence of barter had increased from 5 percent of the value of transactions in 1992 to approximately 20 percent in 1994. Hendley *et al.* (1997) report a further increase to approximately 40 percent in 1996.

The incidence of barter has increased substantially as financial stabilization has proceeded. For this reason, the growth of barter has sometimes been attributed to a shortage of liquidity created by stabilization, as high real interest rates make it hard for enterprises to borrow. It is important to note, however, that the impetus to barter often comes from the seller (Hendley *et al.*, 1997). This suggests that other motivations for barter may be at work.

An alternative explanation for the growth of barter focuses on its utility in IPS activities. As an alternative to monetary exchange, barter directly aids in tax evasion by avoiding the first line of tax collection. Transactions that flow through the banking system are available for collection by the State Tax Service for enterprises that are delinquent on their tax obligations.[34] This is a direct incentive for enterprises in arrears to avoid using money.

More important, perhaps, is the fact that barter makes it easier to hide the value and nature of transactions, in a variety of ways. Barter makes it difficult to identify a transaction's *quid* with its *quo*. Barter transactions are complex and often sequential. Barter is typically multilateral rather than bilateral. A machine-building enterprise will deliver its products to a ball bearing plant, in exchange not for ball bearings, but rather for steel obtained from a third enterprise that receives the ball bearings. Multilateral barter means that the *quid* and the *quo* are separated, both spatially and temporally. This makes it hard for an outside observer, such as the tax authorities or shareholders, to identify what is income and what is a delivery of a newly purchased commodity.[35]

By making transactions hard to observe, multilateral barter also creates contractual complications, in particular problems of enforcement.

[34] Another use of daughter companies involves the use of other companies' bank accounts to make payments. For example, an enterprise might create a company, nominally owned by the director's sister, and use its accounts to receive income, thereby circumventing the STS's efforts to collect.

These transactions are of value precisely because they are not transparent. If transactions are ordered in this manner to aid in hiding income, then courts are of no use if one party reneges on the transaction. This means that barter is of use primarily among enterprises that have had a history of economic relations. Consequently, barter is most prevalent among enterprises with a history of interactions in the planned economy.

Because the use of barter depends on a history of relations, enterprises that engage in it are less likely to restructure. Restructuring typically involves changes in trading partners and would thus imply that monetary transactions replace barter. Notice that if one assumes that barter is due to a lack of liquidity, then the inability to use barter with new suppliers (or customers) is not an obstacle for the restructuring firm. If the firm seeks new suppliers, it must be that the new suppliers are willing to supply credit. If barter is due to tax evasion, on the other hand, then the effective cost of switching suppliers increases. Barter thus introduces a *status quo bias* into inter-enterprise relationships.

Quasi-moneys

Multilateral barter imposes high transaction costs. Consequently, it is not surprising that Russian enterprises have found alternative means of avoiding the use of money. An important innovation in this regard is the proliferation of *vekseli*, bills of exchange issued by banks and enterprises that are used as payment means. By enabling enterprises to avoid paying for goods with non-cash money (*beznalichnyye*), *vekseli* help enterprises avoid the first line of tax collection.[36] Enterprises prefer to accept *vekseli*, which they can use to purchase goods from other enterprises, as opposed to money, which might be taken by tax collectors when it passes through the banking system.

There are two major categories of *vekseli* created by the private sector: *industrial vekseli* and *financial vekseli*. Industrial *vekseli* can be bills of exchange that simply confirm the mutual clearing of debt[37] or promissory

[35] One might think that the advantage here is limited because the recipient enterprise's interest in declaring costs conflicts with the delivering enterprise's interest that sales be hidden. The peculiarities of Russian tax law have played an important role here. Until recently, Russian tax law allowed for VAT declaration of costs when delivery was made, while liability for receipts became due only when payments were made! This permits precisely the concealment alluded to in the text. The International Monetary Fund pushed the Russian government to end this asymmetry in the spring of 1996. It is not clear to what extent this has been enforced in practice.

[36] Banks issued some R20.2 trillion and enterprises another R7.3 trillion. Operations in this market were the primary culprit in the bankruptcy of *Tveruniversalbank*, which at the time was one of Russia's largest non-Moscow banks.

notes issued by the firm. In some cases, these notes can be redeemed for actual goods.[38] Financial *vekseli*, most of which can be traded only locally, are issued by some 25 financial institutions, and tend to fall into two types: those issued to participants in financial-industrial groups and those traded publicly. Guarantees for *vekseli* issued within FIG's can be informal, based on trust between partners, or more formal, based on bank deposits and the stakes of enterprises in banks' equity capital. Operations with publicly traded *vekseli* are often more problematic, with fraud and insufficient information being critical issues limiting their tradeability (*Delovoy Mir*, March 7, 1996, as reported in *OMRI Economic Digest*, 2, 11, March 14, 1996).

Vekseli are a private-sector development mirroring government non-monetary innovations at the federal and local level.[39] To take an important example, consider Treasury Tax Exemptions (KNO's), issued by the Ministry of Finance at the request of other ministries. By design, KNO's were not meant to be tradeable. They were issued to specific enterprises, to be used to offset their tax payments. Yet, in fact, many KNO's were traded in secondary markets. Circulation of KNO's often began when the Defense Ministry paid for purchases using KNO's issued by the Ministry of Finance. These enterprises then paid for their inputs with the KNO's. Eventually, some enterprise in the chain would use the KNO's to pay its taxes. KNO's became popular as a means for the government to meet its financial obligations without violating budget targets.[40] Concerned that the proliferation of KNO's represented monetary financing of expenditure in all but name, the International Monetary Fund pressured the Russian government to cease accepting them in lieu of tax payments by August 1996. As of October 1996, however, KNO's still represented about 20 percent of tax receipts (*Russian Economic Trends*, 5, 3, 1996, p. 12).

[37] They are neither tradeable nor redeemable in cash. Their primary value is in the fact that they generally escape the attention of tax authorities.

[38] These notes often are colloquially named after the director of the issuing factory: "Puginki" are named after the director of the Gorkiy Auto Factory and "Protopopovki" are named after the director of the Neftekamskoye Auto Plant.

[39] Other examples include promissory notes issued by federal and local governments. The former include government guarantees for loans to specific enterprises. Local governments also emit quasi-money, in the form of promissory notes. Although they are not formally tax offsets, most local governments permit firms to use these notes to pay their taxes. It has been reported that the local government in Yekaterinburg stopped accepting its own promissory notes as taxes, because too high a share of taxes was being paid with them.

[40] A related innovation is the provision by the federal government of guarantees to banks, so that they will be willing to credit the promissory notes of specific enterprises. In many cases, the federal government might want to support a particular firm, but does not want to do so out of the federal budget. For example, as of July 1996, Sberbank had issued promissory notes worth around 4 trillion rubles, most under guarantees from the Ministry of Finance to credit interior, defense, communications, and other ministries and the prosecutor general.

The proliferation of various quasi-moneys and the growing use of barter point to an increasing demonetization of the Russian economy. The magnitude of this shift is perhaps illustrated by the estimate of the State Tax Service that non-monetary exchange accounts for 80 percent of transactions in the energy sector (*OMRI*, December 4, 1996). This phenomenon creates more uncertainty about the macroeconomic environment and suggests that financial stabilization is still not complete. Such developments are thus hardly conducive to restructuring. Rather, they appear to be the desperate efforts of those enterprises that wish to postpone serious restructuring.

The increasing incidence of barter and other non-monetary media of exchange points, in fact, to a *re-demonetization* of the Russian economy.[41] The Soviet economy was demonetized in important respects. Access to commodities was conferred by authority, influence, and bribery rather than by possession of money.[42] In a demonetized economy, economic relationships are necessarily personal. In a monetary economy, personal relationships may continue to be important, but anonymous relationships also play a role. Anonymity is especially important in creating new relationships, an action crucial to restructuring. Monetizing the economy was thus a key aspect of market reform. The trend to barter is a serious reversal of market reform.

The retreat from monetization has important implications for the rate of return on productive activities versus that on distributive activities. One of the most important costs of inflation is that the profits from productive activities are small compared to those of predicting inflation correctly. Productive investments may lower costs and increase profits, but this depends on the productivity of capital, not the rate of inflation, and hence the order of magnitude is typically between five and twenty percent. Because inflation rates during a high inflation are variable, the return to correct prediction is often orders of magnitude higher.[43] Financial stabilization should correct this imbalance in relative returns, and thus encourage more productive activity. But this effect has not occurred because of re-demonetization. The survival of an enterprise is much more dependent on successfully negotiating the world of alternative payments means than it is on achieving 3 percent cost reductions. Yet it is the latter that is value creating.

[41] We are grateful to Richard Ericson for suggesting this characterization.

[42] This provides an alternative meaning to the notion of purchasing power.

[43] Of course, this also offers chances to make large losses. But in situations where the Central Bank attempts to stabilize exchange rates in the face of large budget deficits, private investors are presented with bets that are closer to a sure thing.

Financial-Industrial Groups

The emergence and growing importance of financial-industrial groups (FIG's) represents, at least in part, a response to the problems we have outlined above. FIG's were originally promoted as a means of recreating the vertical chains of production that were disrupted by the demise of central planning (see OECD, 1995). In order to regulate their growth, the government issued a decree in December 1993 outlining procedures for their formation ("On financial-industrial groups," 1993). This decree offered some advantages for registered FIG's, including some tax advantages and some investment guarantees from the government. But the decree also included restrictions that have limited the growth of official FIG's.[44] The most important of these restrictions limited the ownership share of any financial institutions to 10 percent of any member enterprise, and no enterprise could own more than 10 percent of the assets of the financial institution. These restrictions served as a bar to those enterprises that had created "pocket" banks and commercial banks that purchased large blocks of shares in enterprises. Because of this problem, most FIG's are unofficial, thus avoiding these restrictions.[45]

Unofficial FIG's do not receive special advantages, so an important question is: why then do they form? Our argument is that FIG's are an institutional innovation that enables enterprises to cope with constraints limiting firm-level growth. First, FIG's help firms overcome problems of inadequate market infrastructure, especially contract enforcement. Integration has long been understood as a potential solution to hold-up problems (Williamson, 1975). Cross-ownership allows member enterprises to engage in complex transactions that could not be supported by contract in the current Russian environment.[46]

The value of cross-ownership in coping with contractual difficulties explains why commercial banks are increasingly taking leading roles in FIG's. In the current environment, lending is quite risky. Equity participation affords commercial banks greater security *via* increased ability to monitor enterprises.

The second explanation for the formation of informal FIG's is that cross-ownership is very useful in supporting informal profit-seeking activ-

[44] In October 1996 there were 43 officially registered FIG's.

[45] This also makes it difficult to measure the quantitative importance of unofficial FIG's. Data from surveys conducted prior to 1996 are of little value because of the tremendous growth caused by the "loans-for-shares" program. This has greatly increased the equity holdings of commercial banks.

[46] When the constituent enterprises in a FIG are historical trading partners, as is typically the case with official registered FIG's, then an additional component of trust is present.

ities. First, the prospect of long-term relationships fosters the development of trust between the various parts of the FIG, even between members with no prior history. Second, cross-ownership opens the possibility that income and expenses can be spread across the different firms in the FIG in order to minimize the tax burden on the group as a whole. In fact, the Russian tax police is so concerned about the pervasiveness of IPS in FIG's that it announced it will set up special rapid response groups to carry out inspections of banks and financial-industrial groups to find hidden income.

THE CIRCLE: VICIOUS OR VIRTUOUS?

The fundamental policy problem faced by Russian policymakers today is how to resolve the fiscal uncertainty that continues to undermine investment. The dilemma emerges because even correct policy will not lead to an immediate resumption of growth if investors do not believe that current fiscal policy can be sustained. But if investment does not take place and growth does not quickly resume, then tax revenues will decline and the policymakers' commitment to non-inflationary budget finance will be tested. In the absence of expenditure reduction and external financing, financial stabilization will be jeopardized.

This problem emerges, in part, because the underlying microeconomic conditions are still not adequate to support restructuring and new entry. Many important market institutions still remain underdeveloped, and the regulatory environment, particularly at the local level, continues to strangle new activity. Fortunately, we expect the performance of many market institutions to improve over time, as the government and private sector make investments in infrastructure and the service providers—lawyers, judges, bankers, market analysts, and the like—learn the skills that are needed to operate in a market economy. Moreover, as better-functioning market institutions increase the mobility of firms, local governments will find they need to compete to attract firms to their regions. This competition should pressure local governments to pursue more efficient regulatory policies and to crack down on corruption inhibiting the growth of local industry. These processes will be buttressed by politics, now that local elections mean something in Russia, many years after similar developments occurred in other reforming countries.

But, generally, these are gradual processes, particularly in a country with Russia's history and its size. Compared to countries in central Europe, Russia lacks a tradition of markets and of economic law, which slows its pace of institutional development. Moreover, given the absence of local diversity in industry, Russia is more dependent on market institutions than are many countries in central Europe. The economic geography of Russia demands that firms look to other regions to find trading partners, yet market institutions are still not sufficient to facilitate this process adequately and at low cost.

The fact that market institutions improve only gradually suggests that the response to financial stabilization will not be fast recovery. As long as there are significant sunk costs to investment in new activities, there will be an option value to waiting to invest. In the absence of external financing and expenditure reduction, the Russian economy could find itself, at first, seemingly locked in a vicious circle of financial stabilization and inflation, accompanied by an absence of growth. But as market institutions improve, this vicious circle could be replaced by a virtuous one, as the willingness of investors to incur sunk costs and invest in growth-producing activities increases.

Clearly, policymakers would like to avoid repeated failed attempts at stabilization, not only because of the social and political costs, but because failures make subsequent attempts less credible and thus more difficult. What should policymakers do to ensure that the "transition" to growth is smooth and in the near term?

At the macroeconomic level, the key is to reduce fiscal uncertainty by bringing the federal budget into balance. Policies should be aimed not at increasing revenues in the short term, but at decreasing expenditures in the longer term. Former Finance Minister Aleksandr Livshits concurred in this judgment, stating that a major cause of the current financial crisis is "irrationally high" government expenditures. According to Former Economics Minister Yevgeniy Yasin, government expenditures accounted for 39 percent of Russia's GDP in 1996 and need to be brought down to at least 25 to 30 percent for economic reform to progress (*OMRI*, February 6, 1997).

At the same time, the Russian tax system must be rationalized to encourage tax compliance. Tax reform should focus on simplification, ease of collection, and elimination of exemptions for special interest groups. Elimination of exemptions would increase revenue, so that tax rates can be lowered. Moreover, tax reform should ensure that the tax system does not discourage investment. Proper treatment of R&D, depreciation, and other expenditures in the calculation of the tax basis is mandatory. Many of these changes are taking place gradually. But frequent changes in the tax code often work to undermine its credibility, thus keeping many firms operating in the shadow economy.

A key problem is proliferation of local taxes and regulations, which increase corruption and strangle new entry, not only in manufacturing but in key services that are a critical part of market infrastructure. Certainly, the number and complexity of regulations should be decreased. Conventional wisdom suggests that competition between local jurisdictions for industry will force local governments to implement efficient tax and regu-